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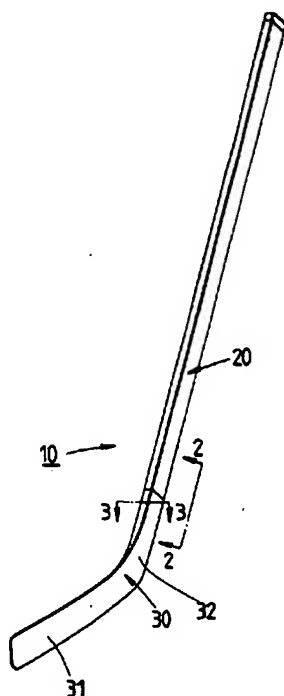
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(72) TSAI, Son-Kung, TW  
(71) TSAI, Son-Kung, TW  
(51) Int.Cl.<sup>6</sup> A63B 59/14  
(54) **BATON DE HOCKEY**  
(54) **HOCKEY STICK**



(57) Cette invention concerne un bâton de hockey composé d'un manche et d'une lame solidaire d'une des extrémités dudit manche et servant à la frappe d'une rondelle. Le manche comporte à une extrémité un embout de raccordement tandis que la lame comporte une partie coudée à fente qui se glisse sur cet embout pour former un assemblage solide. L'embout de raccordement est renforcé à l'aide d'un moins un élément de renfort destiné à empêcher les fissures ou la séparation à la jonction entre l'embout de raccordement et le manche.

(57) A hockey stick consists of a shaft and a blade fastened with one end of the longitudinal axis of the shaft for hitting the puck. The shaft is provided at one end thereof with a connection portion while the blade has a neck provided with a connection slot which is engaged securely with the connection portion of the shaft. The connection portion is reinforced by at least one reinforcing member for averting the crack or severance of the junction between the connection portion and the shaft.



## **HOCKEY STICK**

### **ABSTRACT OF THE DISCLOSURE**

A hockey stick consists of a shaft and a blade fastened with one end of the longitudinal axis of the shaft for hitting the puck. The shaft is provided at one end thereof with a connection portion while the blade has a neck provided with a connection slot which is engaged securely with the connection portion of the shaft. The connection portion is reinforced by at least one reinforcing member for averting the crack or severance of the junction between the connection portion and the shaft.

## **HOCKEY STICK**

### **FIELD OF THE INVENTION**

The present invention relates generally to a hockey, and more particularly to a hockey stick.

### **BACKGROUND OF THE INVENTION**

The conventional hockey stick is generally composed of a wooden shaft and a wooden or plastic blade fastened at one end of the shaft for hitting a puck. The fastening ends of the shaft and the blade are similar in cross-sectional area. The fastening end of the shaft is provided with a connection portion while the fastening end of the blade is provided with a connection slot which is engaged securely with the connection portion of the shaft.

Such a conventional hockey stick as described above is defective in design in that the stress is bound to concentrate on the fastening ends of the shaft and the blade at the time when the blade strikes violently the puck. As a result of the stress concentration, the connection portion of

the shaft is rather vulnerable to crack or severance.

## **SUMMARY OF THE INVENTION**

The primary objective of the present invention is to provide an improved hockey stick free from the shortcoming of the conventional hockey stick described above.

In keeping with the principle of the present invention, the foregoing objective of the present invention is attained by a hockey stick, which consists of a shaft and a blade fastened with one end of the shaft for hitting the puck. The shaft is provided at one end thereof with a connection portion while the blade has a neck provided with a connection slot which is engaged securely with the connection portion of the shaft. The connection portion of the shaft is provided with a reinforcing member for averting the crack or severance of the junction between the connection portion and the shaft.

The foregoing objective, features, functions and advantages of the present invention will be more readily understood upon a thoughtful deliberation of the following detailed description of the embodiments of the present invention in conjunction with the accompanying drawings.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 shows a perspective view of a first preferred embodiment of the present invention.

FIG. 2 shows a sectional view of a portion taken along the direction of a line 2-2 as shown in FIG. 1.

FIG. 3 shows a sectional view of a portion taken along the direction indicated by a line 3-3 as shown in FIG. 1.

FIG. 4 shows a sectional view of a second preferred embodiment of the present invention, with the sectional view being taken along the direction similar to that of FIG. 2.

FIG. 5 shows a sectional view of a third preferred embodiment of the present invention.

## **DETAILED DESCRIPTION OF THE INVENTION**

As shown in FIGS. 1-3, a hockey stick 10 of the first preferred embodiment of the present invention is composed of a shaft 20, a blade 30 fastened with one end of the shaft 20, and a reinforcing member 40 for enhancing the structural strength of the fastening portion located between the shaft 20 and the blade 30.

The wooden shaft 20 has an elongate body 21, a connection portion 22, a ring-shaped step face 23, and a slit 24. The body 21 has a rectangular cross section. The connection portion 22 is an extension of

the body 21. The step face 23 is located between the body 21 and the connection portion 22. The slit 24 is located such that it extends from the center of the bottom of the connection portion 22 to reach the portion beyond the step face 23.

The blade 30 is made of a wooden or plastic material and is composed of a puck-hitting face 31 and a neck 32 extending from the puck-hitting face 31. The neck 32 is corresponding in cross section to the body 21 of the shaft 20 and is provided at the free end thereof with a connection planar surface 33 having a connection slot 34 extending into the interior of the neck 32. The connection slot 34 is intended to engage the connection portion 22 of the shaft 20.

The reinforcing member 40 is made of a metal or fiber-reinforced plastic material and is received in the slit 24 of the shaft 20. The reinforcing member 40 serves to reinforce the connection portion 22 which is engaged with the connection slot 34 of the blade 30.

As shown in FIG. 4, the connection portion 22 of the shaft 20 is provided with two identical reinforcing members 40' extending into the body 21 of the shaft 20.

As shown in FIG. 5, a hockey stick 50 of another embodiment of the present invention is composed of a shaft 60 which is formed of two wooden strips 62 and 64, and an elongated reinforcing member 70. The strips 62 and 64 are rectangular in cross section. The reinforcing member 70 is made of a fiber-reinforced plastic material. The width of the reinforcing member 70 is preferably corresponding to the length of the rectangular cross section of the strips 62 and 64. The reinforcing member



70 is sandwiched between the strips 62 and 64 such that the reinforcing member 70 extends from the tip of the body 66 to the end of the connection portion 68.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE  
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A hockey stick comprising:

a shaft having a rod-shaped body and a connection portion fastened at one end of a longitudinal axis of said body, said connection portion having a cross-sectional area smaller than a cross-sectional area of said body;

a blade having a neck which is provided with a planar top with a connection slot extending from said planar top into an interior of said neck, said neck of said blade being fastened with said body of said shaft such that said connection slot is securely engaged with said connection portion; and

at least one reinforcing member fastened intimately with said connection portion of said shaft such that said reinforcing member extends from said connection portion toward said body of said shaft.

2. The hockey stick as defined in claim 1, wherein said shaft is made of a wooden material.

3. The hockey stick as defined in claim 1, wherein said reinforcing member is made of a metal material.

4. The hockey stick as defined in claim 1, wherein said reinforcing member is made of a fiber-reinforced plastic material.

5. The hockey stick as defined in claim 1, wherein said reinforcing

member is extended to reach another end of the longitudinal axis of said body.

6. The hockey stick as defined in claim 1, wherein said connection portion of said shaft has a rectangular cross section; and wherein said reinforcing member has a width equal to the length of long sides of said rectangular cross section of said connection portion.

7. The hockey stick as defined in claim 5, wherein said connection portion of said shaft has a rectangular cross section; and wherein said reinforcing member has a width equal to the length of long sides of said rectangular cross section of said connection portion.

8. A hockey stick comprising:

a wooden shaft having a rod-shaped body and a connection portion fastened at one end of a longitudinal axis of said body, said connection portion having a rectangular cross-sectional area smaller than a cross-sectional area of said body;

a blade having a neck which is provided with a planar top with a connection slot extending from said planar top into an interior of said neck, said neck of said blade being fastened with said body of said shaft such that said connection slot is securely engaged with said connection portion; and

two reinforcing members greater in strength than said wooden shaft and having a width equal to the length of long sides of a rectangular cross section of said connection portion, said two reinforcing

members being intimately fastened with two outer sides of said connection portion such that said two reinforcing members extend towards said body for a predetermined length.

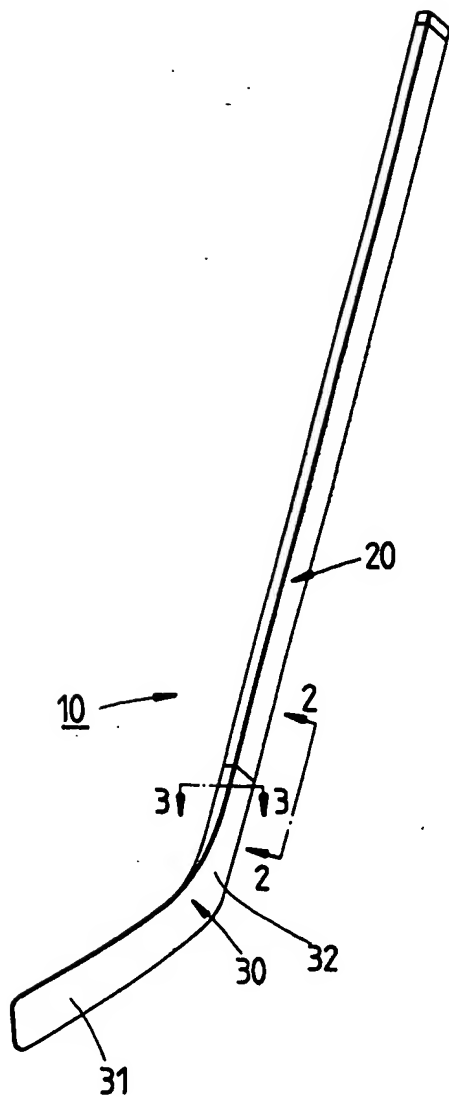


FIG. 1

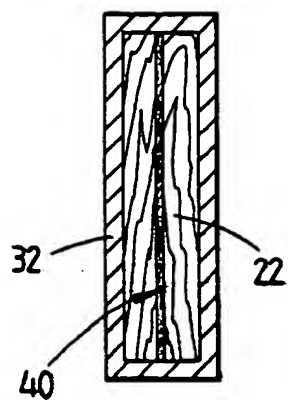


FIG. 3

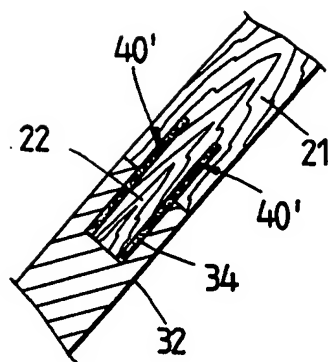


FIG. 4

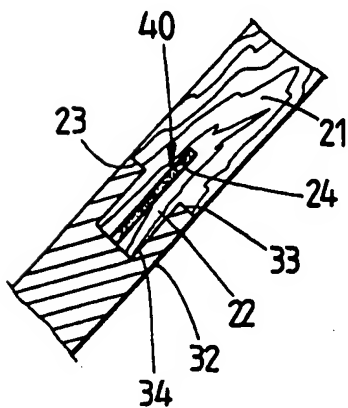


FIG. 2

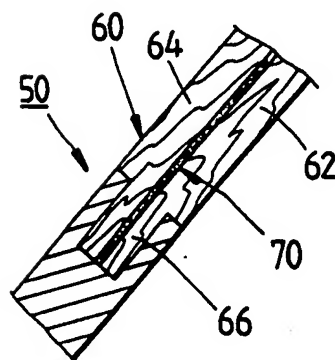


FIG. 5

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